IN THE CLAIMS:

1. (Amended) A scanning exposure apparatus in which a substrate is exposed by synchronously moving a mask and the substrate, the apparatus comprising:

a beam source which emits pulses of an exposure beam in response to trigger signals output at predetermined time intervals;

a projection system disposed in a path of the exposure beam from the beam source and which projects an image of a pattern formed on the mask onto the substrate, the mask to be disposed on one side of the projection system and the substrate to be disposed on another side thereof;

a stage disposed on the one side or the other side of the projection system and which is movable in a scanning direction while holding the mask or the substrate, respectively; and

an interferometer operatively connected to the stage and which outputs a measurement value corresponding to positional information of the stage in the scanning direction;

wherein a start timing of the output of the trigger signals is controlled based on the measurement value from the interferometer.

2. (Amended) A scanning exposure apparatus in which a substrate is exposed by synchronously moving a mask and the substrate, the apparatus comprising:

a beam source which emits pulses of an exposure beam in response to trigger signals output at predetermined time intervals;

a projection system disposed in a path of the exposure beam from the beam source and which projects an image of a pattern formed on the mask onto the substrate, the mask to be disposed on one side of the projection system and the substrate to be disposed on another side thereof;

a stage disposed on the one side or the other side of the projection system and which is movable in a scanning direction while holding the mask or the substrate, respectively; and

an interferometer operatively connected to the stage and which outputs a measurement value corresponding to positional information of the stage in the scanning direction;

wherein a stop timing of the output of the trigger signals is controlled based on the measurement value from the interferometer.

C2

4. (Amended) A scanning exposure method according to claim 3, wherein the beam source emits the pulses of the exposure beam at a predetermined maximum frequency.

C3

9. (Amended) A scanning exposure method according to claim 8, wherein the beam source emits the pulses of the exposure beam at a predetermined maximum frequency.

Please add the following claims:

C4

17. (New) A scanning exposure method according to claim 3, further comprising:

rotating an optical member disposed in the path of the exposure beam, in order to adjust an intensity distribution of the exposure beam in a non-scanning direction perpendicular to the scanning direction.

18. (New) A scanning exposure method according to claim 17, wherein the exposure beam has an intensity distribution in the scanning direction, wherein the intensity distribution in the scanning direction has slope portions at the edges thereof.

19. (New) A scanning exposure method according to claim 17, wherein the optical member includes a field stop.